

DOCKET NO.: MSFT-0592/127745.1

PATENT

Application No.: 09/387,927

Preliminary Amendment - First Action Not Yet Received

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (currently amended) A computer-implemented method comprising:  
generating a desired directory extension;  
generating an aggregatable software object to implement the desired directory extension using a predetermined software object framework having a class identification and one or more interfaces, each interface having an interface identification;  
~~inputting an the generated aggregatable software object consistent with a predetermined software object framework and having a class identification and one or more interfaces, each interface having an interface identification; and~~  
associating one of a directory class and a directory attribute to the class identification of the aggregatable software object, as stored in a predetermined location.
2. (original) The method of claim 1, further comprising querying the one of the directory class and the directory attribute to expose the one or more interfaces of the aggregatable software object.
3. (original) The method of claim 2, further comprising creating an instance of the aggregatable software object upon querying the one of the directory class and the directory attribute.
4. (original) The method of claim 2, further comprising invoking one of the one or more interfaces of the aggregatable software object via the interface identification of the one or more interfaces.

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5. (original) The method of claim 4, further comprising creating an instance of the aggregatable software object upon invoking the one of the one or more interfaces of the aggregatable software object.
6. (previously presented) The method of claim 1, wherein inputting an aggregatable software object comprises:
- creating the aggregatable software object, including assigning the class identification to the aggregatable software object; and,
- creating and implementing the one or more interfaces of the aggregatable software object; including assigning the interface identification for each interface.
7. (original) The method of claim 1, where the predetermined software object framework comprises the Component Object Model (COM) framework.
8. (original) The method of claim 1, wherein the one of a directory class and a directory attribute is consistent with one of Lightweight Directory Access Protocol (LDAP), Novell Directory Services (NDS), and NT Directory Services.
9. (original) The method of claim 1, wherein the one of a directory class and a directory attribute comprises a directory class.
10. (original) The method of claim 1, wherein the one of a directory class and a directory attribute comprises a directory class attribute.
11. (original) The method of claim 1, wherein the predetermined location comprises a client location.
12. (original) The method of claim 11, wherein the client location comprises a registry.

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13. (original) The method of claim 1, wherein the predetermined location comprises a server location.
14. (original) The method of claim 13, wherein the server location comprises a directory of the one of a directory class and a directory attribute.
15. (currently amended) A computer-implemented method comprising:  
    querying one of a directory class and a directory attribute to expose the one or more interfaces of the one of a directory class and a directory attribute, including one or more interfaces of an aggregatable software object having a class identification previously associated to the one of a directory class and a directory attribute, wherein the one or more interfaces of the aggregatable software object implement a desired directory extension;  
    invoking one of the one or more interfaces of the aggregatable software object via the interface identification of the one of the one or more interfaces; and  
    creating an instance of the aggregatable software object.
16. (original) The method of claim 15, wherein creating an instance of the aggregatable software object comprises creating the instance upon querying the one of the directory class and the directory attribute.
17. (original) The method of claim 15, wherein creating an instance of the aggregatable software object comprises creating the instance upon invoking the one of the one or more interfaces of the aggregatable software object.

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18. (currently amended) A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:

generating a desired directory extension;

generating an aggregatable software object to implement the desired directory extension using a predetermined directory framework having a class identification and one or more interfaces, each interface having an interface identification;

inputting an the generated aggregatable software object consistent with a predetermined software object framework and having a class identification and one or more interfaces, each interface having an interface identification; and

associating one of a directory class and a directory attribute to the class identification of the aggregatable software object, as stored in a predetermined location;

19. (original) The medium of claim 18, further comprising querying the one of the directory class and the directory attribute to expose the one or more interfaces of the aggregatable software object.

20. (original) The medium of claim 19, further comprising creating an instance of the aggregatable software object upon querying the one of the directory class and the directory attribute.

21. (original) The medium of claim 19, further comprising invoking one of the one or more interfaces of the aggregatable software object via the interface identification of the one of 15 the one or more interfaces.

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22. (original) The medium of claim 21, further comprising creating an instance of the aggregatable software object upon invoking the one of the one or more interfaces of the aggregatable software object.
23. (original) The medium of claim 18, wherein inputting an aggregatable software object comprises:
- creating the aggregatable software object, including assigning the class identification to the aggregatable software object; and,
  - creating and implementing the one or more interfaces of the aggregatable software object, including assigning the interface for each interface.
24. (currently amended) A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:
- querying one of a directory class and a directory attribute to expose the one or more interfaces of the one of a directory class and a directory attribute, including one or more interfaces of an aggregatable software object having a class identification previously associated to the one of a directory class and a directory attribute, wherein the one or more interfaces of the aggregatable software object implement a desired directory extension;
  - invoking one of the one or more interfaces of the aggregatable software object via the interface identification of the one of the one or more interfaces; and
  - creating an instance of the aggregatable software object.
25. (original) The medium of claim 24, wherein creating an instance of the aggregatable software object comprises creating the instance upon querying the one of the directory class and the directory attribute.

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26. (original) The medium of claim 24, wherein creating an instance of the aggregatable software object comprises creating the instance upon invoking the one of the one or more interfaces of the aggregatable software object.
27. (original) A computerized system comprising: a directory; at least one directory services coupled to the directory; a directory services interface providing a common abstract interface to each of the at least one directory services; and, a directory services interface extension providing the directory services interface with an extended functionality.
28. (original) The system of claim 27, wherein the directory services interface extension comprises an aggregatable software object consistent with a predetermined software object framework and having a class identification and one or more interfaces, each interface having an interface identification.
29. (original) The system of claim 28, wherein the directory comprises one of a directory class and a directory attribute, such that the class identification of the aggregatable software object is associated with the one of the directory class and the directory attribute, as stored in a predetermined location.